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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,609	04/22/2004	Greta Light	15436.374	6844
22913	7590	05/16/2008	EXAMINER	
WORKMAN NYDEGGER 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			LI, SHI K	
			ART UNIT	PAPER NUMBER
			2613	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/829,609

Applicant(s)

LIGHT, GRETA

Examiner

Shi K. Li

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,10,12-14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,10,12-14 and 16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☒ Other: Approved drawing

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 March 2008 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-3, 5-7, 10, 12-14 and 16-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites the limitations "the transceiver housing defining a pair of optical port within an interior of the transceiver housing" and "each of the optical port slots being in communication with a respective optical port" in lines 3-6 of the claim. Instant specification, as originally filed, does not describe these limitations in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 7 recites the limitations “an interior wall that is substantially parallel to respectively axes defined by the transmit and receive optical subassemblies”, “the interior wall at least partially defines both first and second optical ports”, and “each of the optical port slots communicates with a corresponding optical port” in lines 9-13 of the claim. These limitations are not described in the specification, as originally filed, in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 13 recites the limitation “a substantially box-shaped transceiver housing” in line 16 of the claim. Instant specification, as originally filed, does not describe the limitation in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7, 10 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 7 recites the limitation “transmit and receive optical subassemblies” in lines 10-11 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitations “an interior wall that is substantially parallel to respectively axes defined by the transmit and receive optical subassemblies” in lines 9-11 of the claim. It is unclear to what axes the limitation is referring.

Claim 7 recites the limitations “the interior wall at least partially defines both first and second optical ports” in lines 11-12 of the claim. It is unclear how a wall “at least partially defines both first and second optical ports”.

Claim 7 recites the limitation “each of the optical port slots communicates with a corresponding optical port” in lines 12-13 of the claim. It is unclear how a slot communicates with a port.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 1-3, 5-7, 10, 12, 17-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benzoni et al. (U.S. Patent 5,337,398) in view of X2-MSA ("A Cooperative Agreement for a Small Versatile 10 Gigabit Transceiver Package" Issue 0.9, 31st July 2002).

Regarding claim 1, Benzoni et al. discloses in FIG. 14 an optical transceiver module comprising a transceiver housing and a transceiver substrate 12 with electrical connector 16. It is clear from FIG. 14 that the housing has two sides (left and right), a top, a bottom and front and rear faces. Benzoni et al. teaches in FIG. 14 that the housing have slots at the top. Furthermore, Benzoni et al. teaches in FIG. 8 and FIG. 10 receive optical assembly and transmit optical assembly that define a longitudinal axes perpendicular to the transceiver substrate. The difference between Benzoni et al. and the claimed invention is that the transceiver housing of Benzoni et al. has port slots at the top instead of the bottom. However, it is obvious to one of ordinary skill in the art to design the slot at the bottom instead of the top because the cross section of a fiber is of round shape and can be rotated any angle without affecting the optical

signal carried by the fiber. One of the purposes of the slot is for alignment so that fiber cable can only be plugged into the ports with the right orientation. These slots are called connector keys. X2-MSA teaches on page 20, Section 6.12.1 that connector keys are used for /transmit/receiver polarity. Therefore, depending on whether the transmitter is on the left-hand side or the right-hand side, the slots can be put on the top or the bottom. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the port slots at the bottom, as taught by X2-MSA, in the optical transceiver module of Benzoni et al. The motivation for combining Benzoni et al. and X2-MSA is that X2-MSA is an industrial standard widely accepted by many manufacturers and the modifying products to conform to industrial standard makes the products interoperable with products from other vendors and increases market.

Regarding claim 2, FIG. 14 of Benzoni et al. indicates that the transmit optical sub-assembly and receive optical sub-assembly are positioned above an imaginary horizontal plane that bisects the transceiver module.

Regarding claim 3, X2-MSA teaches on page 14 that an application of an optical module is for providing optical network interface in a PCI adaptor.

Regarding claims 5-6, Benzoni et al. teaches in FIG. 9 electronic components, e.g., capacitors 22 and 24.

Regarding claim 7, Benzoni et al. teaches in FIG. 3 electrical connectors 16. Benzoni et al. teaches in FIG. 11 receive optical assembly 52 and transmit optical sub-assembly 50.

Regarding claim 10, X2-MSA teaches on page 14 that an application of an optical module is for providing optical network interface in a PCI adaptor.

Regarding claim 12, Benzoni et al. teaches in FIG. 9 electronic components, e.g., capacitors 22 and 24.

Regarding claim 13, X2-MSA teaches on page 14 that an application of an optical module is for providing optical network interface in a PCI adaptor. Furthermore, X2-MSA teaches on page 14 a box-shaped transceiver housing.

Regarding claim 14, Benzoni et al. teaches in FIG. 9 electronic components, e.g., capacitors 22 and 24.

Regarding claim 16, Benzoni et al. teaches in FIG. 14 connector 16.

Regarding claim 17, X2-MSA teaches on page 14 that an application of an optical module is for providing optical network interface in a PCI adaptor.

Regarding claim 18, X2-MSA teaches on page 14 face plate.

Regarding claims 19 and 21, it is understood that the modified optical transceiver module of Benzoni et al. and X2-MSA is electrically connected to the host bus adapter.

9. Claims 13-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benzoni et al. and X2-MSA as applied to claims 1-3, 5-7, 10, 12, 17-19 and 21 above, and further in view of Poplawski et al. (U.S. Patent 6,551,117 B2) and Togami et al. (U.S. Patent 7,350,984 B1).

Benzoni et al. and X2-MSA have been discussed above in regard to claims 1-3, 5-7, 10, 12, 17-19 and 21. Furthermore, X2-MSA teaches on page 14 a box-shaped housing. To strengthen the rejection, the Examiner cites Poplawski et al. for teaching a box-shaped housing with slots at the bottom. Poplawski et al. teaches in FIG. 14 a transceiver with a circuit board. FIG. 14 shows receptacle openings 532 and 534 where there is a slot at the bottom of each

opening. These slots are for standard duplex connectors (e.g., see FIG. 6A of Togami et al., U.S. Patent 7,350,984 B1). One of ordinary skill in the art would have been motivated to combine the teaching of Poplawski et al. with the modified optical transceiver module of Benzoni et al. and X2-MSA because these slots are needed for accepting standard duplex connectors. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have slots in a box-shaped housing, as taught by Poplawski et al., in the modified optical transceiver module of Benzoni et al. and X2-MSA because these slots are needed for accepting standard duplex connectors.

10. Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benzoni et al. and X2-MSA as applied to claims 1-3, 5-7, 10, 12, 17-19 and 21 above, and further in view of Branch et al. (U.S. Patent 6,485,322 B1).

Benzoni et al. and X2-MSA have been discussed above in regard to claims 1-3, 5-7, 10, 12, 17-19 and 21. The difference between Benzoni et al. and X2-MSA and the claimed invention is that Benzoni et al. and X2-MSA do not teach PCMCIA card. It is understood that PCMCIA cards are used in notebook computers. Branch et al. teaches in FIG. 1 an optical interface card with PCMCIA format. One of ordinary skill in the art would have been motivated to combine the teaching of Branch et al. with the modified optical transceiver module of Benzoni et al. and X2-MSA so that the module can be used with notebook computers. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to put the modified optical transceiver module of Benzoni et al. and X2-MSA in a PCMCIA card, as taught by Branch et al. so that the module can be used in notebook computers.

Response to Arguments

11. Applicant's arguments filed 10 March 2008 have been fully considered but they are not persuasive.

The Applicant argues that claim 1 recites in part "... a transceiver housing including two sides, a top, a bottom, and front and rear faces, at least the front face having right and left sides, the transceiver housing defining a pair of optical ports within an interior of the transceiver housing, and the bottom of the transceiver housing defining a pair of optical port slots, each of the optical port slots being in communication with a respective optical port..." and the Examiner has not shown that the cited references, when combined in the purportedly obvious fashion, teach or suggest these elements in combination with the other elements of claim 1. However, these limitations contain new subject matter and their meaning is not clear. Furthermore, to the Examiner's best-effort interpretation of these limitations, the combination of Benzoni et al. and X2-MSA teaches optical port slots in the same way as the claimed invention. For example, Benzoni et al. teaches in FIG. 14 transceiver housing defining two optical ports. Also Benzoni et al. teaches in FIG. 14 port slots. However, the Examiner does not understand how a port slot can communicate with an optical port.

12. Applicant's arguments with respect to claim 13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shi K. Li whose telephone number is 571 272-3031. The examiner can normally be reached on Monday-Friday (7:30 a.m. - 4:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

skl
13 May 2008

/Shi K. Li/
Primary Examiner, Art Unit 2613